



OCEAN READINESS

Preparing to Safely Build Offshore

The four founding members of the Ocean Readiness Partnership are:

North Atlantic Offshore Training and Development: *Megan Amsler, Principal*

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OceanReadiness

Preparing to Safely Build Offshore

Expertise



Services

- Risk Identification
- Health & Safety Program Design
- Contracting Advisory Services
- Training & Development for both Health/Safety & Commercial applications
- Regulatory Review
- Compliance Verification
- Dispute Resolution/Expert Opinion
- Community Outreach
- General Advisory



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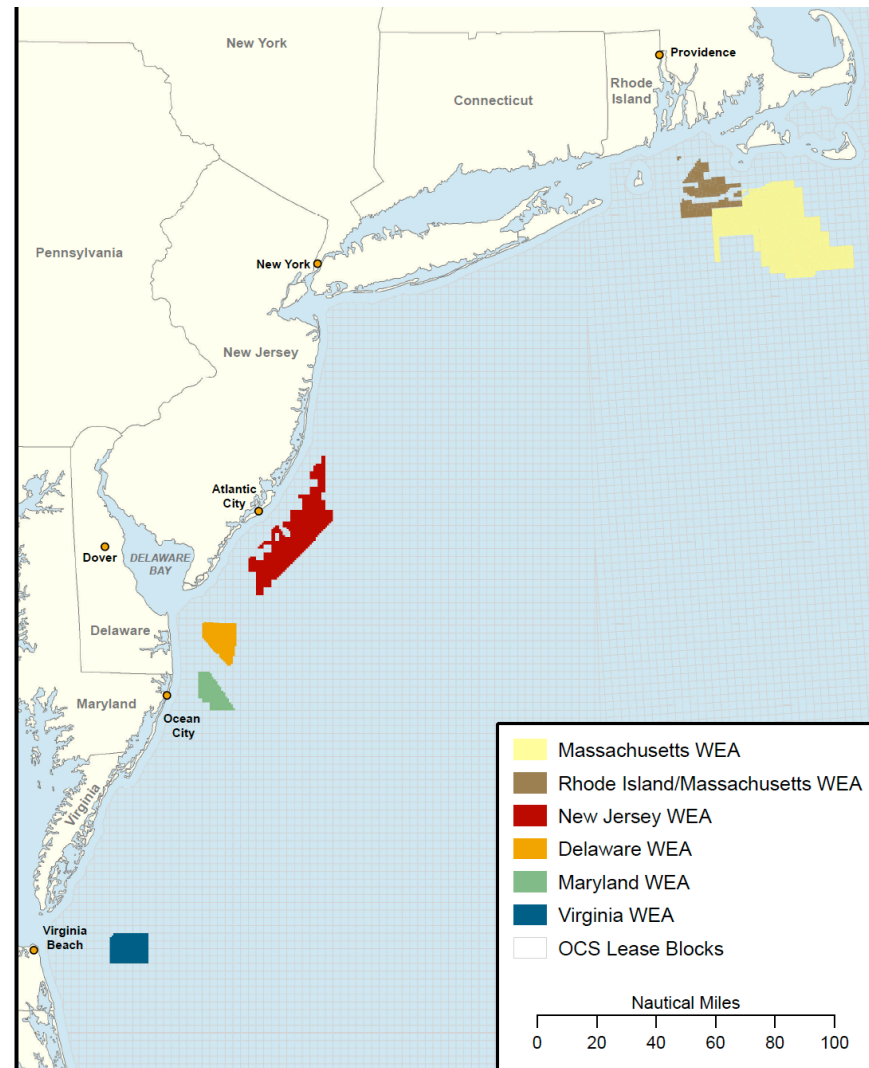


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Developing Projects in Need of a Trained Workforce

- UMaine Aqua Ventus
- Cape Wind
- Block Island Wind
- MA/RI Wind Energy Area
- MA Wind Energy Area
- NY/NJ Wind Energy Area
- DE Wind Energy Area
- MD Wind Energy Area
- VA Wind Energy Area
- Great Lakes
- Gulf of Mexico
- Pacific Northwest

BOEM Map of Eastern Offshore Wind Energy Areas

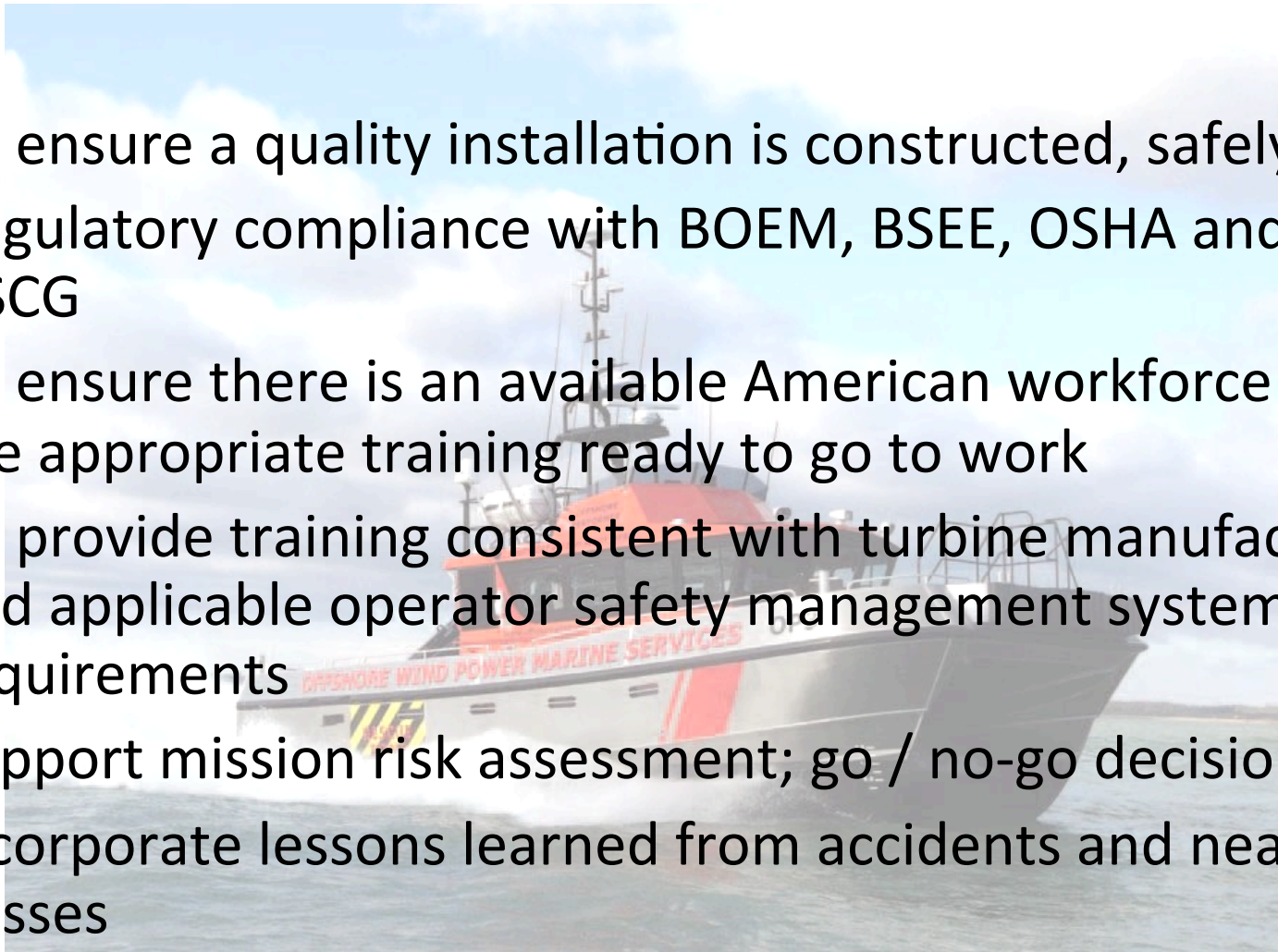




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Why Offshore Workforce Development is Needed

- To ensure a quality installation is constructed, safely
- Regulatory compliance with BOEM, BSEE, OSHA and the USCG
- To ensure there is an available American workforce with the appropriate training ready to go to work
- To provide training consistent with turbine manufacturer and applicable operator safety management system requirements
- Support mission risk assessment; go / no-go decisions
- Incorporate lessons learned from accidents and near misses





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Offshore Work Risk Assessment

The first step in reading the work force is understanding the commercial, health and safety risks specific to each work package on a typical offshore wind farm.

- Foundation Installation
- Turbine Installation
- Offshore Substation Installation
- Cable Installation (both Array and Export)
- Support Vessel Activity (including transfer vessel crews)

A risk assessment workshop is completed and the hazards are evaluated and mitigated on:

- Offshore Health & Safety Standards (minimum requirements vs. accepted best practices)
- Health, Safety and Commercial Workforce Training & Development Alternatives
- Applicable US Maritime Regulatory Environment
- European Offshore Wind Project Installation Lessons Learned

The results of the risk assessment mitigations flow into identifying the specific safety, development or commercial training needed to prepare the workforce.



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US Offshore Regulatory Review

The U.S. offshore wind industry is in its early stages of development and different authorities have jurisdiction over different parts of the industry. Prescriptive health and safety regulations, specific to the industry, do not currently exist.

The following regulatory agencies have some role in worker health and safety offshore:

- Bureau of Ocean Energy Management (BOEM) : Outer Continental Shelf
- Bureau of Safety and Environmental Enforcement (BSEE): Outer Continental Shelf
- Occupational Safety and Health Administration (OSHA): Land based activities and offshore out to 3 nautical miles
- U.S. Coast Guard (USCG): All vessels and vessel crews



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Commercial Training and Development



Many job opportunities exist here domestically and globally as there is a continued demand for skilled labor.

Certificate reciprocity can allow American workers the opportunity to participate in a [global](#) industry and [economy](#).

Back Deck and Below-the-Water commercial training and development is essential to this industry growing in the US.

- ROV operators
- Divers
- Cable installers





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North Atlantic Offshore Renewable Training & Development Center

Vision

To establish the premier center of excellence for offshore renewable energy training in the U.S. – meeting the growing need for offshore renewable energy workers with technical, health, safety, and environmental training.

Mission

To lead the U.S. offshore renewable energy industry in providing technical and safety training by combining industry-endorsed and certified training programs and lessons from the European experience to meet all U.S. requirements.

Goals

- Maintain the highest level of training for certification of offshore workers
- Conduct all training while following “Zero Harm” health and safety principles
- Develop sufficient training capacity in time to meet the needs of the emerging U.S. wind and hydrokinetic industries
- Provide industry leadership in the field of offshore renewable energy technical and safety training



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Partnering with Massachusetts Maritime Academy

- Vessel crew training and certification – STCW
- Vessel to Turbine Transfer; space to install dockside transition piece on campus to train on
- Safe transfer training from vessels and ladders to platforms
- Training for all in rescue of person in water
- Partnering with Gardline



Source: Gardline



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Training & Development Examples Offered by the Offshore Renewable Training and Development Center

Back Deck & Below the Water

Back Deck Workers

Cable Laying

Foundations/Jackets/Transition Piece

ROV Operations

Health & Safety

Above-the-Water

Turbine Installation Technicians

Turbine Operations & Maintenance
Technicians

Offshore Marine Safety

HUET

Turbine Transfer Vessel

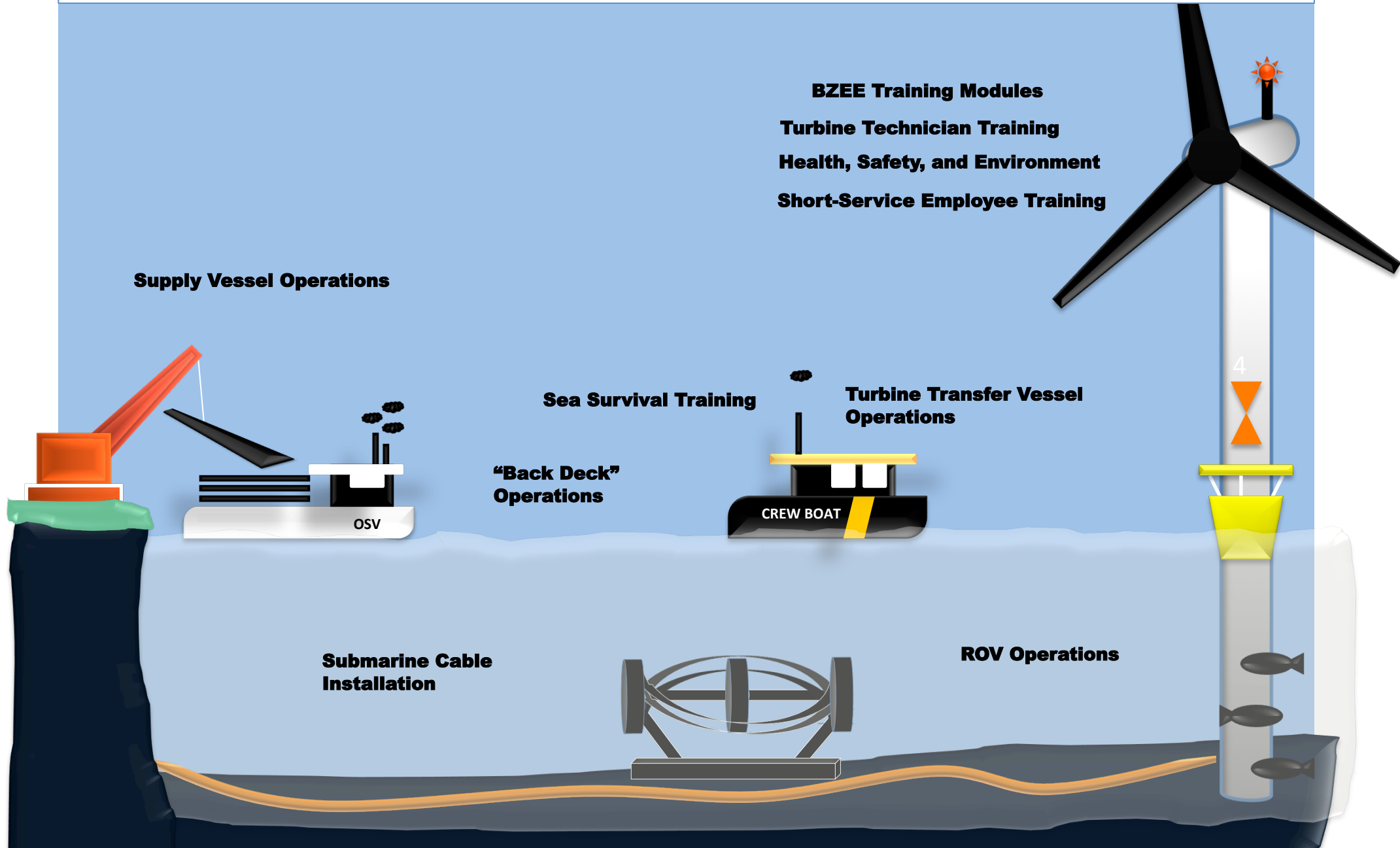
STCW

Firefighting



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Offshore Wind Farm Training Opportunities





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BZEE Curriculum Provides Training in:

- **Service Technician for wind turbines**
- **Assembly technician for wind turbines**
- **Teacher training for BZEE programs**
- **Customized programs for work force such as climb training, rescue at heights, rotor blade inspection, repair**
- **Modules for short-service workers**
- **Full O&M course**
- **Practical internships (240 hr) are also required before**
- **Issuance of the BZEE certificate.**
- **This is a hands-on program, not just classroom learning.**





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Marine Safety for Offshore Service Technicians

Modules for Basic Course

- Sea Survival and Rescue
- Emergency, Rescue, Communication and Behavior
- Fire Awareness and Fire Fighting
- Extended First Aid (hypothermia, dealing with injuries)
- Transport and Access to Offshore Turbines
- Rescue from Heights from Offshore Turbines
- Helicopter Training (Helicopter Underwater Escape Training HUET)
- Helicopter Transfer, Helicopter Rescue and Hoisting





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Let's make it happen, safely.

<http://oceanreadiness.com/>

